

ABSTRACT OF THE DISCLOSURE

A liquid crystal device is constructed in such a structure that a plurality of stripe bulkheads substantially perpendicular to a direction of a layer of a smectic liquid crystal are provided on at least one of a pair of substrates retaining the smectic liquid crystal therebetween and that an elastic modulus E of the bulkheads, an outside pressure P, an area A1 of the substrate, a total area A2 of contact surfaces between the bulkheads and the substrate, and a volumetric shrinkage ratio $\Delta V_{lc}/V_{lc}$ of the smectic liquid crystal within an ambient temperature range of the liquid crystal device satisfy the following relation:

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$$(1/E) \times P \times (A1/A2) \geq \Delta V_{lc}/V_{lc},$$

whereby the bulkheads become able to be compressed in response to volumetric shrinkage of the liquid crystal.

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